

Smith, Buck (ECY)

From: Chuck Lindsay [clindsay@aesgeo.com]
Sent: Saturday, June 15, 2013 12:06 PM
To: Smith, Buck (ECY)
Cc: Andy Enfield
Subject: Enfield Old Change/Transfer Applications

Buck,
FYI
Chuck

**Charles S. Lindsay L.G., L.E.G., L.Hg. | Senior Principal Geologist and Hydrogeologist
Associated Earth Sciences, Inc.**

2911 ½ Hewitt Avenue, Suite 2 | Everett, Washington 98201

C|425-766-2217 O|425-259-0522 F|425-252-3408

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From: Andy Enfield [mailto:aenfield@enfieldfarms.com]
Sent: Saturday, June 15, 2013 9:27 AM
To: Chuck Lindsay
Cc: Mike Haveman
Subject: RE: Old Change/Transfer Applications

Ecology can reject the change applications listed below.
Thanks
Andy

Andy Enfield

Vice President
P 360.354.3019
C 360.410.2639
F 360.354.0503
www.enfieldfarms.com



From: Chuck Lindsay [mailto:clindsay@aesgeo.com]
Sent: Thursday, June 13, 2013 10:35 AM
To: Andy Enfield
Subject: Old Change/Transfer Applications

Andy,
Buck Smith (Ecology) visited me today and requested that Enfield Farms agrees to having Ecology reject the change/transfer applications listed below. Each of these change applications were submitted by Enfield Farms in 1996-1997. The 2012 change applications for the Home Fields area which are currently in the Ecology cost reimbursement

pool can be considered replacements for these old applications. Please let me know if Ecology has your authorization to reject the old applications and remove them from the system. Thanks,
Chuck

<u>Change App</u>	<u>Right Name</u>	<u>App Date</u>
CS1-*17211C	Brockmeyer	1996
CG1-00502C	Chilton	1997
CG1-*02351C	Maberry	1997
CG1-20922C	Bauman	1997
CG1-21213C	Chilton	1997
CS1-05117C	Brown	1997

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MEMORANDUM

To: File

From: Jacque Klug

Date: September 30, 2004

Subject: Enfield Farms Change Applications

Enfield farms has filed change applications to spread water authorized under 9 existing water rights to additional acres under Chapter 90.03.380 RCW. Because these applications are requesting spreading, the amount of water eligible for spreading is equivalent to the annual consumptive quantity as defined in RCW 90.03.380. The ACQ test is based on the last 5 years of continuous beneficial use. Enfield converted to drip irrigation in the early 1990s which allowed him to irrigate more land because the saved water from converting to a more efficient irrigation method could be used on additional acres. Because the conversion to drip occurred 10 years ago, applying the annual consumptive quantity using the last five years of water use would not provide him with enough water to irrigate the additional acres because the "credited" years are those in which the water use is minimal in comparison to water use when the farms used less efficient irrigation methods (e.g., Big Gun sprinklers and hand lines).

The following table lists the water rights for which Enfield Farms filed change applications and the location of the change applications.

Bartlett Rd & Pole Rd Farm				
Certificate	Priority Date	Qi	Qa	Acres
GWC 6931-A	1/29/1969	120	51	34
GWC 1414-A	4/14/1952	140	15	10
GWC 1766	4/17/1952	150	30	20
Total		410	96	64
Additional Acres				76
Enfield Farm Headquarters (Birch Bay Rd)				
Certificate	Priority Date	Qi	Qa	Acres
SWC 9177C	4/2/1962	0.20 cfs	40	20
SWC 1384C	3/28/1940	0.67 cfs	124	62
GWC 1300	2/21/1952	320	105	70
G1-00502C	4/28/1971	250	67	50
G1-21213C	2/1/1974	180	9	18
G1-20922C	9/19/1973	100	29	16
Total		1240.5 (gpm)	374	236
Additional Acres				280

Klug, Jacques

From: Andy Enfield [aenfield@enfieldfarms.com]

Sent: Thursday, September 18, 2003 1:02 PM

To: Klug, Jacques

Subject: RE: Water Right Application Update

Hi Jacques,

We appreciate the update. We would like to continue to hold our applications aside, and wait to see what happens.

Thank You

Andrew Enfield

-----Original Message-----

From: Klug, Jacques [mailto:JKLU461@ECY.WA.GOV]

Sent: Thursday, September 18, 2003 11:23 AM

To: Marv Enfield; Andy Enfield; Mike Haveman

Subject: Water Right Application Update

Hello,

I wanted to give you an update of the status of your water right applications for change. When we last spoke this winter, I indicated that you might want to hold off on the processing of the water right changes as there was some legislation proposed that would have amended the existing water law relating to spreading of conserved water. The proposed changes, if passed, would likely have led to a more favorable outcome on your water right applications. Unfortunately, this legislation did not pass in this past session. However, I know that spreading and relinquishment of water rights are both issues on the Governor's agenda for the upcoming legislative session, and there seems to be growing momentum to address water resource issues related to agriculture. Thus, I wanted to see if you would still prefer for Ecology to set aside your applications and wait to see if the spreading provisions are amended this session. Setting aside your applications does not impact the extent of your water right, nor does it impact the water rights' priority dates. Rather, it simply allows Ecology to process other water right changes behind yours in line in the Bertrand Creek sub basin.

If you have any questions, or would like a meeting to discuss these issues, please let me know. If you have any questions regarding the scope of the water law reform or how you might become involved in the process, you can either contact me, or Rep. Linville's office, as she is actively engaged in these issues and their impacts to Whatcom County.

Sincerely,

Jacque Klug

Jacque Klug

Department of Ecology

Water Resources Program

3190 160th Ave SE



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-5000

RECEIVED
FEB 03 2003
DEPT OF ECOLOGY

January 15th, 2003

Marvin Enfield
Enfield Farms Inc.
1064 Birch Bay Lynden Rd
Lynden, WA 98264

RE: Water Right Change Applications for Enfield Farms

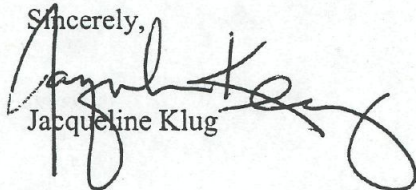
Dear Marvin:

This letter is to inform you that the Department of Ecology is unable at the time to process your water right applications for change due to legal uncertainties with the applicability of the current agricultural spreading provisions to your applications. Due to the interest and activity in the Legislature concerning these issues, Ecology will set your applications aside and pursue processing later applications in the same water source until the end of the 58th Legislative Session (2003).

This action will not impact the priority dates of your water rights or will impair your water rights. This action allows the agency to review and process water right applications for change submitted after your applications for change were submitted.

Please review the statement at the conclusion of this letter, sign it and return it to our office. If you have any questions or concerns, feel free to give me a call at (425) 649-7230.

Sincerely,


Jacqueline Klug

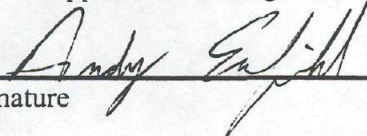
I have read this letter and:

☒ I agree to the action of allowing subsequent applications for change to be processed before my applications during the 58th Legislative session.

-or-

☐ I disagree to the action of allowing subsequent applications for change to be processed before my applications during the 58th Legislative session.

Signature



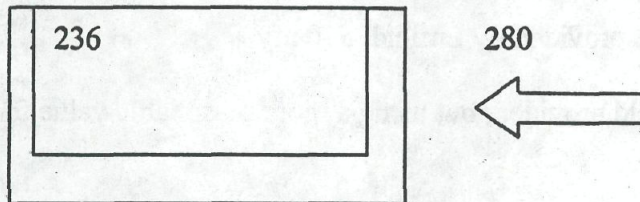
Date

1-29-03



Enfield Farms Historic Water Use & Annual Consumptive Quantity Calculations

The values are for the main farm headquarters properties. Total irrigated acreage is 280 (including spreading acres). The number of acres authorized to be irrigated under their water rights is 236. The total annual quantity on the certificates is 371 afy.



Drip Irrigation Yearly Estimated Water Use

Crops: Raspberries and Blueberries

Irrigated Acres: 280

Year	Total Water Used	Total Amount of Water Used on Legal POU
2002	349.1	279.3
2001	298.77	239
2000	267.32	213.9
1999	317.6	254.1
1998	289.3	231.5

Big Gun Irrigation Yearly Estimated Water Use

Crops: Raspberries (220 acres); Strawberries (60 acres) - *wrong strawberries 40 acres*

Irrigated Acres: 280

Year	Total Water Used	Total Amount of Water Used on Legal POU
1991	402.2	321.7
1990	433.1	346.5
1989	464.02	371.2
1988	402.1	321.7
1987	464	371

The drip estimate aligns with values in the irrigation guides and bulletin, except for the Big Gun estimate. According to the WIG, strawberries in Lynden area should only be irrigated around 2.6 inches per acre. Enfield has estimated 1.48 feet per acre for both strawberries and raspberries. Thus... it seems likely that they either were extremely inefficient or else they misestimated water use for strawberries. If we gave them credit for water use only at the WIG values, then the ACQ would be not be enough to spread. However, it is likely that they rotated different crops on the land which use more water (e.g., raspberry or potatoes).

Here are some possible ACQ scenarios:

1. Using most recent 5 years (2002-1998) on the 236 acres: 282 afy
2. Using recent 5 years (2002-1998) on spreaded acres & authorized acres: 371.8 afy
3. Using 5 years pre-project at the values provided by Enfield: 570 afy
4. Using 5 years pre-project which Enfield provided, but using a more reasonable value for strawberries: 373 afy
5. Using 5 years of pre-project, using WIG but for 236 acres of raspberries (arguing Grimes--- to estimate for crop rotation): 386 afy

The calculations are determined using the following method.

1. Take the estimated water used, for number 5, I took the WIG value for raspberries: 16.7 inches/acre and then multiplied by the number of acres (236) and divided by 12 to get acre feet. 386 afy.
2. Then you must account for irrigation inefficiencies. For a Big Gun sprinkler, it is around 65% efficient. $386 / .65 = 594$ afy.
3. The amount of water which is either returned to the water source or evaporated is: $594 - 386 = 208$ afy
4. Now, you must estimate how much is lost to evaporation or wind drift. For a Big Gun, it seems reasonable that 20% is lost to evaporation or wind drift, which is figured to be consumptively used. Thus, the applicant uses approximately, $(.2) (208) = 42$ afy. $386 + 42 = 428$ consumptively.

Application to Combine Water Rights

These are the best numbers we could come up with considering that we did not keep track of exactly how many times we irrigated. We currently grow raspberries and blueberries on these lands. Previously we grew raspberries and strawberries, gradually getting out of the strawberry business in 1996. We switched to drip irrigation over a gradual period starting in 1992 and were completely switched by the harvest of 1997. Prior to drip irrigation we used big guns on everything we grew. Our irrigation season begins May 1 and ends October 1.

Over the next few years we will be swapping most of this land with a neighboring potato grower. So big guns will again be used on parts of these lands, over the next ten years. Not all of the acreage will be planted in potatoes or in raspberries at one time. Drip will be used on the majority of the land but up to 50 acres a year could be irrigated with the big gun.

We have included data for the last five years of drip irrigation including 2002. Also, we have included data of the last five years in which big guns were used, 87-91. We gathered this data from our memories and weather history.

* Per conversation with Andy Entfield on 10/17/02
Entfield in last 15 yrs had @ most, 30 acres
of strawberries at one time. Thus, for the
#5 Big gun @ Home farms, the gun watered
a combination of Raspberries and
Strawberries and not solely strawberries
as the table suggests.

- JK 10/17/02

Drip Irrigation

We ran our system

111 days during this year.

Home

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	Raspberries	243.36	85.16	67
Home	Raspberries	265.06	89.82	76
Home West	Raspberries	225.93	80.34	68
Brockmeyer N	Raspberries	113.72	26.04	22
West of Bob Hall	Blueberries	221.92	67.73	47
<i>Total</i>		<u>1069.99</u>	<u>349.09</u>	<u>280</u>

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	SWC1384C	301	?	62
Home	GWC 1300	320	105	70
Home West	G1-00502C	250	67	50
Brockmeyer N	SWC 9177C	40	40	20
West of Bob Hall	G1-21213C & G120922C	280	38	34
<i>Total</i>		<u>1191</u>	<u>250</u>	<u>236</u>

Bartlett

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Bartlett	Raspberries	250	93.79	76
<i>Total</i>		<u>250</u>	<u>93.79</u>	<u>76</u>

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Butler	GWC 6931-A	120	51	34
Steiber	GWC 1414-A	140	15	10
Butler	GWC 1766	150	30	20
<i>Total</i>		<u>410</u>	<u>96</u>	<u>64</u>

Drip Irrigation

We ran our system

95 days during this year.

Home

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	Raspberries	243.36	72.88	67
Home	Raspberries	265.06	76.87	76
Home West	Raspberries	225.93	68.76	68
Brockmeyer N	Raspberries	113.72	22.29	22
West of Bob Hall	Blueberries	221.92	57.97	47
Total		1069.99	298.77	280

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	SWC1384C	301	?	62
Home	GWC 1300	320	105	70
Home West	G1-00502C	250	67	50
Brockmeyer N	SWC 9177C	40	40	20
West of Bob Hall	G1-21213C & G120922C	280	38	34
Total		1191	250	236

Bartlett

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Bartlett	Raspberries	250	80.27	76
Total		250	80.27	76

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Butler	GWC 6931-A	120	51	34
Steiber	GWC 1414-A	140	15	10
Butler	GWC 1766	150	30	20
Total		410	96	64

Drip Irrigation

We ran our system

85 days during this year.

Home

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	Raspberries	243.36	65.21	67
Home	Raspberries	265.06	68.78	76
Home West	Raspberries	225.93	61.52	68
Brockmeyer N	Raspberries	113.72	19.94	22
West of Bob Hall	Blueberries	221.92	51.87	47
<i>Total</i>		<u>1069.99</u>	<u>267.32</u>	<u>280</u>

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	SWC1384C	301	?	62
Home	GWC 1300	320	105	70
Home West	G1-00502C	250	67	50
Brockmeyer N	SWC 9177C	40	40	20
West of Bob Hall	G1-21213C & G120922C	280	38	34
<i>Total</i>		<u>1191</u>	<u>250</u>	<u>236</u>

Bartlett

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Bartlett	Raspberries	250	71.82	76
<i>Total</i>		<u>250</u>	<u>71.82</u>	<u>76</u>

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Butler	GWC 6931-A	120	51	34
Steiber	GWC 1414-A	140	15	10
Butler	GWC 1766	150	30	20
<i>Total</i>		<u>410</u>	<u>96</u>	<u>64</u>

Drip Irrigation

We ran our system

101 days during this year.

Home

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	Raspberries	243.36	77.49	67
Home	Raspberries	265.06	81.73	76
Home West	Raspberries	225.93	73.10	68
Brockmeyer N	Raspberries	113.72	23.69	22
West of Bob Hall	Blueberries	221.92	61.63	47
<i>Total</i>		<u>1069.99</u>	<u>317.64</u>	<u>280</u>

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	SWC1384C	301	?	62
Home	GWC 1300	320	105	70
Home West	G1-00502C	250	67	50
Brockmeyer N	SWC 9177C	40	40	20
West of Bob Hall	G1-21213C & G120922C	280	38	34
<i>Total</i>		<u>1191</u>	<u>250</u>	<u>236</u>

Bartlett

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Bartlett	Raspberries	250	85.34	76
<i>Total</i>		<u>250</u>	<u>85.34</u>	<u>76</u>

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Butler	GWC 6931-A	120	51	34
Steiber	GWC 1414-A	140	15	10
Butler	GWC 1766	150	30	20
<i>Total</i>		<u>410</u>	<u>96</u>	<u>64</u>

Drip Irrigation

We ran our system

92 days during this year.

Home

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	Raspberries	243.36	70.58	67
Home	Raspberries	265.06	74.45	76
Home West	Raspberries	225.93	66.59	68
Brockmeyer N	Raspberries	113.72	21.58	22
West of Bob Hall	Blueberries	221.92	56.14	47
<i>Total</i>		<u>1069.99</u>	<u>289.34</u>	<u>280</u>

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Home North	SWC1384C	301	?	62
Home	GWC 1300	320	105	70
Home West	G1-00502C	250	67	50
Brockmeyer N	SWC 9177C	40	40	20
West of Bob Hall	G1-21213C & G120922C	280	38	34
<i>Total</i>		<u>1191</u>	<u>250</u>	<u>236</u>

Bartlett

<i>System</i>	<i>Crop</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Bartlett	Raspberries	250	77.74	76
<i>Total</i>		<u>250</u>	<u>77.74</u>	<u>76</u>

<i>Allowable by permits</i>	<i>Certificate</i>	<i>gpm</i>	<i>acre ft/yr</i>	<i>acres</i>
Butler	GWC 6931-A	120	51	34
Steiber	GWC 1414-A	140	15	10
Butler	GWC 1766	150	30	20
<i>Total</i>		<u>410</u>	<u>96</u>	<u>64</u>

Big Guns

1991

We had 6 guns, 4 that put out 275 gpm and could irrigate 11 acres in a 24 hour period.

The other 2 put out 300 gpm and could irrigate 12 acres in a 24 hr period.

We irrigated around the clock during our cycles. Our irrigation season ranged from May 1 to October 1.

Home Fields

guns	crop	gpm	acres	runtime	gpd	cycle days	gallons used/cycle	acre ft/cycle	cycles
	1 raspberries	275	11	1440	396000	5	1980000	6.08	13
	2 raspberries	275	11	1440	396000	5	1980000	6.08	
	3 raspberries	275	11	1440	396000	5	1980000	6.08	
	4 raspberries	275	11	1440	396000	5	1980000	6.08	
	5 strawberries	300	12	1440	432000	5	2160000	6.63	
Daily Total		1400	56	1440	2016000				
Cycle Total							10080000	30.93	
Yearly Total							131040000	402.15	

It takes 5 days for us to do a complete cycle on the 280 acres at the home place.

We made about 12 irrigation cycles.

Bartlett

guns	crop	gpm	acres	runtime	gpd	days	gallons used/cycle	acre ft/cycle	cycles
	1 raspberries	300	12	1440	432000	6.33	2734560	8.39	13
Daily Total		300	12	1440	432000				
Cycle Total							2734560	8.39	
Yearly Total							35549280	109.10	

It takes 6.33 days to complete an irrigating cycle at the Bartlett place.

We made about 12 irrigation cycles here as well.

Big Guns

1990

We had 6 guns, 4 that put out 275 gpm and could irrigate 11 acres in a 24 hour period.

The other 2 put out 300 gpm and could irrigate 12 acres in a 24 hr period.

We irrigated around the clock during our cycles. Our irrigation season ranged from May 1 to October 1.

Home Fields

guns	crop	gpm	acres	runtime	gpd	cycle days	gallons used/cycle	acre ft/cycle	cycles
	1 raspberries	275	11	1440	396000	5	1980000	6.08	14
	2 raspberries	275	11	1440	396000	5	1980000	6.08	
	3 raspberries	275	11	1440	396000	5	1980000	6.08	
	4 raspberries	275	11	1440	396000	5	1980000	6.08	
	5 strawberries	300	12	1440	432000	5	2160000	6.63	
Daily Total		1400	56	1440	2016000				
Cycle Total							10080000	30.93	
Yearly Total							141120000	433.08	

It takes 5 days for us to do a complete cycle on the 280 acres at the home place.

We made about 12 irrigation cycles.

Bartlett

guns	crop	gpm	acres	runtime	gpd	days	gallons used/cycle	acre ft/cycle	cycles
	1 raspberries	300	12	1440	432000	6.33	2734560	8.39	14
Daily Total		300	12	1440	432000				
Cycle Total							2734560	8.39	
Yearly Total							38283840	117.49	

It takes 6.33 days to complete an irrigating cycle at the Bartlett place.

We made about 12 irrigation cycles here as well.

Big Guns

1989

We had 6 guns, 4 that put out 275 gpm and could irrigate 11 acres in a 24 hour period.

The other 2 put out 300 gpm and could irrigate 12 acres in a 24 hr period.

We irrigated around the clock during our cycles. Our irrigation season ranged from May 1 to October 1.

Home Fields

<i>guns</i>	<i>crop</i>	<i>gpm</i>	<i>acres</i>	<i>runtime</i>	<i>gpd</i>	<i>cycle days</i>	<i>gallons used/cycle</i>	<i>acre ft/cycle</i>	<i>cycles</i>
	1 raspberries	275	11	1440	396000	5	1980000	6.08	15
	2 raspberries	275	11	1440	396000	5	1980000	6.08	
	3 raspberries	275	11	1440	396000	5	1980000	6.08	
	4 raspberries	275	11	1440	396000	5	1980000	6.08	
	5 strawberries	300	12	1440	432000	5	2160000	6.63	
<i>Daily Total</i>		<u>1400</u>	<u>56</u>	<u>1440</u>	<u>2016000</u>				
<i>Cycle Total</i>							<u>10080000</u>	<u>30.93</u>	
<i>Yearly Total</i>							<u>151200000</u>	<u>464.02</u>	

It takes 5 days for us to do a complete cycle on the 280 acres at the home place.

We made about 12 irrigation cycles.

Bartlett

<i>guns</i>	<i>crop</i>	<i>gpm</i>	<i>acres</i>	<i>runtime</i>	<i>gpd</i>	<i>days</i>	<i>gallons used/cycle</i>	<i>acre ft/cycle</i>	<i>cycles</i>
	1 raspberries	300	12	1440	432000	6.33	2734560	8.39	15
<i>Daily Total</i>		<u>300</u>	<u>12</u>	<u>1440</u>	<u>432000</u>				
<i>Cycle Total</i>							<u>2734560</u>	<u>8.39</u>	
<i>Yearly Total</i>							<u>41018400</u>	<u>125.88</u>	

It takes 6.33 days to complete an irrigating cycle at the Bartlett place.

We made about 12 irrigation cycles here as well.

Big Guns

1988

We had 6 guns, 4 that put out 275 gpm and could irrigate 11 acres in a 24 hour period.

The other 2 put out 300 gpm and could irrigate 12 acres in a 24 hr period.

We irrigated around the clock during our cycles. Our irrigation season ranged from May 1 to October 1.

Home Fields

guns	crop	gpm	acres	runtime	gpd	cycle days	gallons used/cycle	acre ft/cycle	cycles
	1 raspberries	275	11	1440	396000	5	1980000	6.08	13
	2 raspberries	275	11	1440	396000	5	1980000	6.08	
	3 raspberries	275	11	1440	396000	5	1980000	6.08	
	4 raspberries	275	11	1440	396000	5	1980000	6.08	
	5 strawberries	300	12	1440	432000	5	2160000	6.63	
Daily Total		1400	56	1440	2016000				
Cycle Total							10080000	30.93	
Yearly Total							131040000	402.15	

It takes 5 days for us to do a complete cycle on the 280 acres at the home place.

We made about 12 irrigation cycles.

Bartlett

guns	crop	gpm	acres	runtime	gpd	days	gallons used/cycle	acre ft/cycle	cycles
	1 raspberries	300	12	1440	432000	6.33	2734560	8.39	13
Daily Total		300	12	1440	432000				
Cycle Total							2734560	8.39	
Yearly Total							35549280	109.10	

It takes 6.33 days to complete an irrigating cycle at the Bartlett place.

We made about 12 irrigation cycles here as well.

Big Guns

1987

We had 6 guns, 4 that put out 275 gpm and could irrigate 11 acres in a 24 hour period.

The other 2 put out 300 gpm and could irrigate 12 acres in a 24 hr period.

We irrigated around the clock during our cycles. Our irrigation season ranged from May 1 to October 1.

Home Fields

<i>guns</i>	<i>crop</i>	<i>gpm</i>	<i>acres</i>	<i>runtime</i>	<i>gpd</i>	<i>cycle days</i>	<i>gallons used/cycle</i>	<i>acre ft/cycle</i>	<i>cycles</i>
	1 raspberries	275	11	1440	396000	5	1980000	6.08	15
	2 raspberries	275	11	1440	396000	5	1980000	6.08	
	3 raspberries	275	11	1440	396000	5	1980000	6.08	
	4 raspberries	275	11	1440	396000	5	1980000	6.08	
	5 strawberries	300	12	1440	432000	5	2160000	6.63	
<i>Daily Total</i>		<u>1400</u>	<u>56</u>	<u>1440</u>	<u>2016000</u>				
<i>Cycle Total</i>							<u>10080000</u>	<u>30.93</u>	
<i>Yearly Total</i>							<u>151200000</u>	<u>464.02</u>	

It takes 5 days for us to do a complete cycle on the 280 acres at the home place.

We made about 12 irrigation cycles.

Bartlett

<i>guns</i>	<i>crop</i>	<i>gpm</i>	<i>acres</i>	<i>runtime</i>	<i>gpd</i>	<i>days</i>	<i>gallons used/cycle</i>	<i>acre ft/cycle</i>	<i>cycles</i>
	1 raspberries	300	12	1440	432000	6.33	2734560	8.39	15
<i>Daily Total</i>		<u>300</u>	<u>12</u>	<u>1440</u>	<u>432000</u>				
<i>Cycle Total</i>							<u>2734560</u>	<u>8.39</u>	
<i>Yearly Total</i>							<u>41018400</u>	<u>125.88</u>	

It takes 6.33 days to complete an irrigating cycle at the Bartlett place.

We made about 12 irrigation cycles here as well.

DATE: 08/25/93

RECEIVED FROM: ENFIELD FARMS INC

PHONE: (206) 459-6207
P.O. BOX 5128
LACEY, WA 98503-5128

(For low-level surcharge only.)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

RECEIPT CODING:

INV/CAT CD	ID/APPL NO	TYPE	AMOUNT	FUND DISTRIBUTION
✓G*	G00502	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011
✓G*	G1300	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011
✓G*	G1414	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011
✓G*	G1766	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011
✓G*	G6931	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011
✓G1-	G1-20922	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011
✓G1-	G1-21213	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011
✓S*	S1384	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011
✓S*	S9177	WRF	\$100.00	001- -001- - - - - - - -NWR- - - -02-85-000011

✂
Please detach and return with your remittance.

Payment due:

OCTOBER 8, 1993

Please mail to:

Department of Ecology
Water Right Application Surcharge
PO BOX 5128
LACEY WA 98503-0210

Application number:

S*9177

For agency use only: 001-02-85-11

Region: NWR

**Please write your application number on your check or money order. Do not mail cash.
Make checks payable to the Department of Ecology.**

P 371 317 822



Enfield's

ENFIELD FARMS INC.

June 27, 2002

Jacqueline Klug
Water Resources Program
Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452

RECEIVED

JUN 28 2002

DEPT OF ECOLOGY

Dear Jacqueline:

Enclosed you will find an affidavit of publication for the Ground Water Right #7431-A. We published the notice in the Lynden Tribune for the required two weeks.

Regarding the following certificates:

- GWC 6931-A
- GWC 1414-A
- GWC 1766
- SWC 9177C
- SWC 1384C
- GWC 1300
- G1-00502C
- G1-21213C
- G1-20922C

I reviewed the limited records that we do have along with the output volume of the irrigation pumps. It would appear that, although not every year, we do use the acre feet volume of each water right. Although the usage has not been on the property listed in the water right, it has been used on the various acres listed on our requested change in water right usage.

We would like to make the changes in the usage property as per our requested water right changes and leave the volume and acre feet as per the water right. We will start keeping much better records (metering) of our water usage. We can then review the water used in the future to determine if a change in volume is necessary.

Please give me a call if you have any questions or need any additional information. Thank you for your help with these changes.

Sincerely,

Mike Haveman

Growers & Packers of Raspberries & Blueberries

1064 Birch Bay Lynden Rd., Lynden, WA 98264 / Phone: (360) 354-3019 / Fax: (360) 354-0503
Email: berries@enfieldfarms.com / Web Page: www.enfieldfarms.com



State of Washington
DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 600 Capitol Way N • Olympia, WA 98501-1091 • (360) 902-2200, TDD (360) 902-2207
Main Office Location: Natural Resources Building • 1111 Washington Street SE • Olympia, WA

Department of Ecology
Northwest Regional Office
3190-106th Avenue SE
Bellevue, WA 98008-5452

RECEIVED
MAY 30 2002
DEPT OF ECOLOGY

May 28, 2002

WATER RIGHT CHANGE APPLICATION REVIEW

Application Number: 02451, 09989, 02448,
G1-09317C, 17211, 5117, G1-20922, G1-
21213, 2351, 11813

Applicant: Marvin D. Enfield
1064 Birch Bay Lynden Road
Lynden, WA 98264

WRIA: 1

Water: wells and unnamed streams and ponds

This water and/or affected reaches downstream are inhabited by: Coho, pink and chum in Bertrand Creek and some of the unnamed streams and ponds. WDFW works with Enfield Farms, Inc. to maintain fish habitat.

Based on: ☐ Site-specific observations ☐ WDFW database or GIS
☐ Literature ☒ Knowledge of this type of stream

Amount: 4.47 cfs 2,010.50 gpm acre-ft/yr

Point of diversion: Portions of S6 T39 R3; S21 & S22 T40 R2; S32 T41 R4

Point of use: 300 acres of berry fields owned by Enfield Farms, Inc.

WDFW recommended conditions:

☒ Instream flows in WAC 173-501-030

☐ This water right should be subject to any established lake levels, if any.

Instream flows based on: ☐ IFIM study ☐ USGS toe-width ☐ Tennant
☐ Other:

WDFW requests that water right be subject to the following instream flows or natural flow, whichever is less: 13-90 cfs depending on season (see WAC 173-501-030)

Instream flows to be measured at: Gage WDOE 2124-00 on Bertrand Creek.

Other conditions requested by WDFW indicated by ☒:

☐ HPA

☐ Screen intake if accessible to fish (to be determined during application for HPA) according to WDFW standards.

☐ Based upon review of fish resources present, type and amount of water use, condition of habitat, and amount of water available, WDFW REQUESTS DENIAL of this application, in accordance with RCW 77.55.050, IF THIS SPACE IS CHECKED.

☐ WDFW recommends modification of this proposal to minimize impacts to fish.

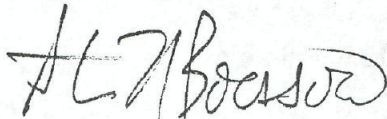
☐ WDFW is a landowner and water user that will be affected by this proposed use.

☐ Please HOLD this application pending field review. WDFW staff will provide detailed response by

☐ Granting this water right application would adversely affect WDFW's existing water rights for a facility. We request the following conditions for this water right if it is granted.

Rationale for WDFW recommendations if not based on existing rules or statutes: The stream flows mandated in WAC 173-501-030 should be used as guidelines for maintaining sufficient flow for salmon and resident fish. HPA and fish screens should be required for any new surface diversions.

Additional comments: As Enfield Farms, Inc. is a senior water right holder in the area WDFW recommends working out a plan with them to voluntarily manage water for the benefit of fish & wildlife.



Steve Boessow

Water Rights Biologist

360-902-2410

Fax: 360-902-2946

E-mail: boesssnb@dfw.wa.gov

Mike Hase man

The Lynden Tribune

AFFIDAVIT OF PUBLICATION

RECEIVED

MAY 25 1993

DEPT. OF ECOLOGY

LEGAL

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
NOTICE OF APPLICATION TO
CHANGE EXISTING WATER RIGHTS
TAKE NOTICE:

That MARVIN ENFIELD of LYNDEN, WASHINGTON, on JANUARY 25, 1993, has filed applications of change to SURFACE WATER CERTIFICATES S*1384 AND S*9177.

Certificated uses are collectively for .87 cfs, for IRRIGATION OF 82 ACRES, as granted under Surface Water Rights S*1384 and S*9177, with respective priority dates of MARCH 28, 1940 AND APRIL 2, 1962 That the original points of diversion are located in NW 1/4 AND SE 1/4 of Section 22, Township 40N, Range 2E W.M., WHATCOM County. The places of use are located within THE NW 1/4 AND SE 1/4 OF THE SAME SECTION.

The request here is to change THE PLACE OF USE TO: WITHIN 280 ACRES OF SECTION 21, 22 AND 27 OF TOWNSHIP 40N, RANGE 2E.

No increase will be made to the instantaneous diversion/withdrawal rate or annual quantity.

Protests or objections to approval of this application must include a detailed statement of the basis for objections: protests must be accompanied by a two dollar (\$2.00) recording fee for each protested application and filed with the Department of Ecology, at the address shown below, within thirty (30) days from May 19, 1993.

Department of Ecology
Northwest Regional Office;
3190-160th SE;
Bellevue, WA 98008

Published May 12 and 19, 1993

STATE OF WASHINGTON,
COUNTY OF WHATCOM

Agnes Ruth Roorda being first sworn on oath, deposes and says that she is the principal clerk of THE LYNDEN TRIBUNE, a weekly newspaper. That said newspaper is a legal newspaper and has been approved as a legal newspaper by order of the superior court in the county in which it is published and it is now and has been for more than six months prior to the date of publications hereinafter referred to, published in the English language continually as a weekly newspaper in Whatcom County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of said newspaper.

That the annexed is a true copy of a *Notice of application to change existing water rights* S. 1384 + S 9177 as it was published in regular issues (and not in supplement form)

of said newspaper once each week for a period of *two* consecutive weeks, commencing on the

12th day of *May*, 19*93*, and ending on the

19th day of *May*, 19*93*, both dates inclusive, and that such newspaper was regularly distributed to its subscribers during all of said period. That the full amount of the fee charged for

the foregoing publication is the sum of \$ *109.40* which amount has been paid in full.

Agnes Ruth Roorda
Subscribed and sworn to before me this *19th* day

of *May*, 19*93*.

MA Leewer
Notary Public in and for the State of
Washington, residing at Lynden

Affid OK
5/28/93 SRS



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave. S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

May 14, 1993

Mr. Leroy Deardorff, Director
Lummi Indian Business Council
2616 Kwina Rd
Bellingham, WA 98226-9298

Dear Mr. Deardorff:

Re: Water Application No. (s) G*1766, G*1414A, G*6931A, G1-
26903, S1-26905, G1-26900, G1-26901, G1-26902, S*09177,
G*1300, G1-00502, S*1384, G1-20922C, G1-21213C

Your protest against the granting of a water right to Marvin
Enfield is acknowledged and made a matter of record.

Your objections will be fully considered before taking
further action on these applications.

Sincerely,

Janice Stance

Water Resources
Northwest Regional Office

WR:js

NOTE: PLEASE ADVISE OF ANY ADDRESS CHANGE.



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave. S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

May 14, 1993

Mr. Marvin Enfield
1064 Birch Bay-Lynden Rd
Lynden, WA 98264

Dear Mr. Enfield:

Re: Water Application No. G*1766, G*1414A, G*6931A, G1-26903, S1-26905, G1-26900, G1-26901, G1-26902, S*09177, G*1300, G1-00502, S*1384, G1-20922C, G1-21213C

For your information Mr. Leroy Deardorff, Director of the Lummi Indian Business Council, whose address is 2616 Kwina Road in Bellingham, has filed a written protest to your applications for water rights. A copy of the protest is enclosed for your information.

This protest will be fully considered before taking further action on your application.

Sincerely,

Water Resources
Northwest Regional Office

WR:js
Enclosure



LUMMI INDIAN BUSINESS COUNCIL

2616 KWINA RD. • BELLINGHAM, WASHINGTON 98226-9298 • (206) 734-8180

DEPARTMENT _____

EXT: _____

March 16, 1993

Sheila Baker
Water Resources
Dept of Ecology
3190 160th Ave SE
Bellevue, WA 98008-5452

RECEIVED
MAR 18 1993
DEPT. OF ECOLOGY

Dear Ms. Baker;

The Lummi Nation would like to protest the applications for water rights listed below. The wells for the groundwater appear to be located in close proximity to streams listed with them. These streams are all significant for fish production, instream flows and water quality. These withdrawals from wells in hydraulic continuity with these streams will reduce flows further. The surface water applications being protested are from the same streams, and these withdrawals will reduce flows.

We submit our protest as holders of senior water rights to Nooksack Basin waters and as co-managers of fisheries with the state. The Drayton Harbor watershed is not only a salmon spawning watershed, but drains to significant shellfish beds in Drayton Harbor where water quality is a concern.

Until and unless the applicants on the two pages attached to this letter can provide us with technical information to demonstrate that these wells will not impact flows in nearby streams, we will protest approval of these water rights.

There are several other protests we wish to submit regarding water rights listed on the 2/25/93 list. They are:

S-26892	Skookum Cr Hydro Inc.	Skookum Cr
S-26891	Skookum Cr Hydro Inc.	Orsino Cr

The above water withdrawals are in the Skookum Creek watershed where the Lummi Nation owns and operates a salmon hatchery that is integral to fisheries management and of great significance to our economy. The Skookum Creek hatchery produces millions of fish annually that are caught by all fishers. We are opposed to any water withdrawals in this watershed.

Finally, a water rights application we are also protesting is;

G-26855	P. Troutman/A. Kute	1 S09 T38NR01E
---------	---------------------	----------------

This water rights application is on the Lummi Indian

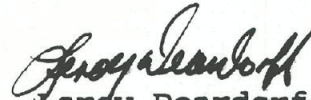
*OK for Protest
5/12/93*

Reservation. The Lummi Nation does not recognize the jurisdiction of the State of Washington over Reservation waters. There is a water shortage for tribal members and there is absolutely no "excess" waters for non-Indian use. Please send us all information on this water rights application and register our protest, as this is water reserved under the Treaty of 1855 for the sole use of the Lummi people.

In summary, there is an extensive list of water rights we are protesting to protect the instream flows of Nooksack and Drayton Harbor watershed streams, two protests related to protection of the Lummi Nation hatchery at Skookum Creek, and one protest for an on-reservation water right.

Please call me at 647-6272 if you have any questions.
Thank-you.

Sincerely,



Leroy Deardorff, Director
Water Task Force

cc: Fisheries dept.

March 16, 1993

Water rights applications protested by Lummi Nation:

-1766	Marvin Enfield	Wiser Lake
-1414	Marvin Enfield	Wiser Lake
G-26936	Nick Vanderveen	Fishtrap Cr.
-1343	C. Timmberman	Fishtrap Cr.
-6931	Marvin Enfield	Wiser Lake
G-21329	Jake Stap	Bertrand Cr.
G-26930	W.O. Jacobson	Bertrand/Fishtrap
G-26928	R. Dickinson	Wiser Lake
G-26934	K. O. Thompson	Nooksack River
S-26922	Leroy Lagerway	Fishtrap Cr.
G-26925	Leonard J. Ebe	Dakota Cr.
-2652	Dewey Honcoop	Fishtrap Cr.
G-26946	Ziegler/Bajema	Wiser Lake
S-26921	Curt Maberry	Bertrand Cr.
S-26945	Curt Maberry	Bertrand Cr.
G-26918	Norm Sangha	Fishtrap Cr.
G-26914	Leonard Ebe	Bertrand/Dakota
S-26915	John Clark	Bertrand Cr.
G-26916	Leonard J. Ebe	Dakota Cr.
G-26911	Leonard J. Ebe	Dakota Cr.
G-26909	Delta Water Assoc	Fishtrap Cr.
G-26910	Robert DeGroot	Nooksack River
S-26898	Stan Van Diest	Bertrand Cr.
S-26887	Maberry Packing	Bertrand Cr.
G-26903	Marvin Enfield	Bertrand Creek
S-26866	Curtis Maberry	Bertrand Cr.
-1384	Marvin Enfield	Bertrand Creek
S-26867	Henry Jansen	Bertrand Cr.
G-26897	Radar Farms	Fishtrap Cr.
G-26906	Marvin Enfield	Bertrand/Dakota
-2418	Rader Farms	Fishtrap Creek
S-26905	Marvin Enfield	Bertrand Cr.
G-26904	Marvin Enfield	Bertrand Cr.
G-26902	Marvin Enfield	Bertrand Cr.
G-26901	Marvin Enfield	Bertrand Cr.
G-26900	Marvin Enfield	Bertrand Cr.
-9177	Marvin Enfield	Bertrand Cr.
-1300	Marvin Enfield	Bertrand Cr.
G-21213	Marvin Enfield	Bertrand Cr.
G-20922	Marvin Enfield	Bertrand Cr.
G-00502	Marvin Enfield	Bertrand Cr.
G-26886	D.S. Robinson	Nooksack River
G-26885	Craid Hougan	Fishtrap Cr.
G-26884	Jagtar Sanha	Fishtrap Cr.
-1334	City of Everson	Nooksack River
404D	City of Everson	Nooksack River
G-26881	Jim Bjornstad	Ten Mile Creek
G-26879	Norm Sangha	Fishtrap Cr.
G-26871	Kalsbeek Farms	S. Fork Nooksack
G-26877	Ed Powers	Fountain Lake

G-26878	Maberry Packing	Dakota Cr.
G-26870	deWilde Nurseries	Wiser Lake
G-26876	deWilde Nurseries	Wiser Lake
S-26875	Maberry Packing	Dakota Cr.
G-26873	deWilde Nurseries	Wiser Lake
G-26874	Maberry Packing	Bertrand Cr.
G-26869	Keith Bouma	Ten Mile Cr.
G-26868	B. Schuyleman	Fishtrap Cr.
S-26858	Curt Maberry	Bertrand Cr.
S-26861	Curt Maberry	Bertrand Cr.
S-26860	Curt Maberry	Bertrand Cr.
G-26859	Curt Maberry	Bertrand Cr.
G-26862	Curt Maberry	Bertrand Cr.
G-26853	Van Zanten's Inc	Fishtrap Cr
G-26854	B. & R. Barrett	Nooksack River
G-26852	Jake Stap	Bertrand/Fishtrap
G-26851	Sterk Farms	Nooksack tributary
G-26863	Curt Maberry	Bertrand Cr.
G-26864	Curt Maberry	Bertrand Cr.
G-26865	Curt Maberry	Bertrand Cr.
G-26843	Lyle Rader	Fishtrap Cr.
G-26841	Derek Gavette	Nooksack River.
G-26842	L. & S. Rader	Fishtrap Cr.



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave. S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

May 5, 1993

Mr. Marvin Enfield
1064 Birch Bay Lynden Road
Lynden, WA 98264

Dear Mr. Enfield:

Re: Water Right Application Nos. G1-26887, S1-26899, G1-26900, G1-26901, G1-26902, G1-26903, S1-26905, G1-26906, G1-27034, G1-27035 and Applications to Change Existing Certificate Nos. G*1300, G1-00502, G1-20922, G1-21213, S*1384, S*9177, G*1414, G*1766, G*6931.

Your applications for the appropriation of water has been assigned the above-referenced numbers. Please refer to these numbers in future correspondence.

Enclosed are notices of your applications which must be published once a week for two consecutive weeks in a qualified legal newspaper of general circulation in Whatcom County. A list of these newspapers in your county is enclosed.

Please read the notices carefully to make sure they are correct. Should you find an error, please return it to our office for correction.

You should contact a newspaper regarding publication of your notices as soon as possible. When you receive the Affidavits of Publication from the newspaper, please forward the original affidavits to us promptly. This will shorten the time for further processing of your applications.

Sincerely,

Water Resources
Northwest Regional Office

WR:ls
Enclosure



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

NOTICE OF APPLICATION TO CHANGE EXISTING WATER RIGHTS

TAKE NOTICE:

That MARVIN ENFIELD

of LYNDEN, WASHINGTON, on JANUARY 25, 1993, has filed applications of change to SURFACE WATER CERTIFICATES S*1384 AND S*9177.

Certificated uses are collectively for .87 cfs, for IRRIGATION OF 82 ACRES, as granted under Surface Water Rights S*1384 and S*9177, with respective priority dates of MARCH 28, 1940 AND APRIL 2, 1962

That the original points of diversion are located in NW 1/4 AND SE 1/4 of Section 22, Township 40N, Range 2E W.M., WHATCOM County. The places of use are located within THE NW 1/4 AND SE 1/4 OF THE SAME SECTION.

The request here is to change THE PLACE OF USE TO: WITHIN 280 ACRES OF SECTION 21, 22 AND 27 OF TOWNSHIP 40N, RANGE 2E.

No increase will be made to the instantaneous diversion/withdrawal rate or annual quantity.

Protests or objections to approval of this application must include a detailed statement of the basis for objections: protests must be accompanied by a two (\$2.00) recording fee for each protested application and filed with the Department of Ecology at the address shown below, within thirty (30) days from

(Last date of publication to be entered above by publisher)

Department of Ecology
Northwest Regional Office
3190 - 160th SE
Bellevue, WA 98008